

**REMARKS**

This a complete and timely response to the non-final Office Action mailed on September 21, 2004. Claims 1, 11, and 17 are amended, claim 20 is canceled, new claims 25-41 are added. Claims 1-19, and 21-41 are pending.

**1. Amendment of the Claims**

Claim 1 is amended to correct matters of form and clarification.

Claims 11 and 17 are amended to broaden the claims by deleting steps (d) and (e) and to correct matters of form.

Applicants submit that these amendments are not made to address any issue of record related to the patentability of the claims.

**2. Rejection of Claims 1, 2, 3, 4, 5, and 24 under 35 U.S.C. § 102(b)**

Claims 1, 2, 3, 4, 5, and 24 are rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by US Patent No. 5,889,142 ("the '142 patent") because the '142 patent discloses the use of a mixture of caprolactam and water as a solvent for Nylons. Applicants respectfully traverse this rejection.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference."

Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Applicants respectfully submit that the '142 patent fails to disclose each and every element of the claimed subject matter.

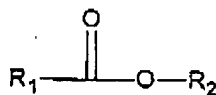
The Office Action asserts that the '142 patent discloses a method for separating polyolefin from a polyamide using solutions of caprolactam and water at selected temperature ranges below the degradation temperature of polymer to be recovered.

The Office Action further asserts that there appears to be no significant difference between the claimed subject matter and the method disclosed by the '142 patent. Applicants respectfully disagree for the reasons provided below.

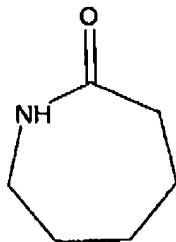
Claim 1 is independent, and claims 2-5 and 24 depend on claim 1. Because claims 2-5 and 24 depend from claim 1, these claims incorporate each and every limitation of claim 1. Claim 1 recites a method for separating the polyolefin component from the polyamide component of a commingled waste by admixing said commingled waste with an ester solvent composition, heating the admixture to a temperature above the melting temperature of the polyolefin component sufficient to dissolve at least a portion of the polyamide component of the commingled waste in the ester solvent composition and form a separate immiscible molten polyolefin phase and separating the ester solvent composition containing dissolved polyamide from the immiscible polyolefin phase.

The '142 patent discloses a solvent composition containing caprolactam and water. Applicants respectfully submit that caprolactam is not an ester, and therefore, the '142 patent fails to anticipate claims 1-5 and 24 for at least the reason that the '142 patent fails to disclose a method for separating polyolefin from polyamides using an ester solvent.

An ester has the following general formula:



Caprolactam has the following structural formula:



Whereas an ester must, by definition, contain 2 oxygen atoms, Caprolactam contains a single oxygen atom and, therefore, cannot properly be considered an ester.

Accordingly, Applicants respectfully request that the rejection be withdrawn.

### **3. Objection to Claims 6-23**

Claims 6-23 are objected to as being dependent upon a rejected base claim, and would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Although claims 6-10 ultimately depend from rejected claim 1, claims 11-23 do not. Claims 11 and 17 are independent claims and claims 12-16 and 18-23 are dependent upon claims 11 and 17, respectively. It appears, therefore, that claims 11-23 are allowable as originally presented.

### **4. New Claims 25-41**

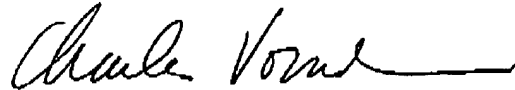
Although Applicants submit that claims 1-5 are allowable over the art of record, Applicants add new claim 25 that is a broader version of claims 11 and 17. Applicants also add new claims 26-41 to further define and claim the various embodiments of the invention. Applicants submit that new claims 25-41 are not added to overcome any rejection or address any issue of record related to the patentability of the claimed

subject matter. Basis for the new claims is found throughout the specification as originally filed. Therefore, Applicants submit that the claim amendments do not add any new matter.

**CONCLUSION**

In light of the foregoing amendments and for at least the reasons set forth above, Applicants respectfully submit that all objections and/or rejections have been traversed, rendered moot, and/or accommodated, and that the now pending claims 1-19 and 21-41 are in condition for allowance. Favorable reconsideration and allowance of the present application and all pending claims are hereby courteously requested. If, in the opinion of the Examiner, a telephonic conference would expedite the examination of this matter, the Examiner is invited to call the undersigned agent at (770) 933-9500.

Respectfully submitted,



Charles Vorndran, Reg. No. 45, 315  
THOMAS, KAYDEN,  
HORSTEMEYER & RISLEY, L.L.P.

Suite 1750  
100 Galleria Parkway N.W.  
Atlanta, Georgia 30339  
(770) 933-9500

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**CERTIFICATE OF FACSIMILE**

I hereby certify that this correspondence is being transmitted by facsimile to:

**ATTN: Examiner Terressa M. Boykin**

Facsimile number: **(703) 872-9306**  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

on December 21, 2004.

Jennifer Pomonis  
Jennifer Pomonis

In Re Application of:

**Mauldin, et al.**

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Group Art Unit: **1711**

Examiner: **Terressa M. Boykin**

Docket No. **820322-1030**

The following is a list of documents enclosed:

1. Deposit Account Authorization in the amount of \$1,400.00
2. Certificate of Facsimile
3. Amendment Transmittal Page
4. Response and Amendment

Further, the Commissioner is authorized to charge Deposit Account No. 20-0778 for any additional fees required. The Commissioner is requested to credit any excess fee paid to Deposit Account No. 20-0778.